

# AGRICULTURAL EFFICIENCY

PRESENTATION 3/DECEMBER 5, 2011

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# THE PROBLEM

Improving  
agricultural  
efficiency in  
San Pablo

# SAN PABLO SURVEY

## Time on the farm - Tiempo en la granja

Which months out of the year do you farm? - Cuales meses del año trabaja en la granja?

- ☐ January - Enero
- ☐ February - Febrero
- ☐ March - Marzo
- ☐ April - Abril
- ☐ May - Mayo
- ☐ June - Junio
- ☐ July - Julio
- ☐ August - Agosto
- ☐ September - Septiembre
- ☐ October - Octubre
- ☐ November - Noviembre
- ☐ December - Diciembre

On average, how many days a week is work done on the farm? - Por medio, cuantas días cada semana haba trabajo en la granja?

- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5
- ☐ 6
- ☐ 7

On average, how many hours per day is work done on the farm? - Por medio, cuantas horas cada día haba trabajo en la granja?

- ☐ 1-2
- ☐ 3-4
- ☐ 4-5
- ☐ 6-7
- ☐ 8-9
- ☐ 10+

Which operations are performed by hand on your farm? - Cuales operaciones hace con la mano en su granja?

- ☐ Tilling - Labranza
- ☐ Watering - Riego
- ☐ Spraying pesticides - Rociando pesticidas
- ☐ Pulling Weeds - Malezas tirando
- ☐ Adding fertilizer - La adición de fertilizante
- ☐ Harvesting - Cosecha
- ☐ Planting - plantación
- ☐ Other - Otro

- Spraying pesticides is a time consuming and laborious process
- Farmers work 4–5 hrs/day, 7days/week
- Families consume 60–70% of their crops

# THE PROBLEM STATEMENT

- Agriculture in San Pablo is a laborious practice. As a result, farmers choose shortcut solutions to their problems at the cost of health and profit.
- Our goal is to investigate integrated pest management (IPM) as an alternative solution, as well as a means to disseminate the knowledge appropriately.

# PUBLISHED RESEARCH

2010 UN  
Report

US IPM  
Initiative

Google Ad

Related  
Projects

- **Industrial farming will not be sufficient to satisfy the world's food needs**
- **An efficient, widely available, and sustainable method of production is needed**
- **Small scale farming and agroecology is the best approach**

- **Global Crop Pests Database  
(cornell.edu)**
- **IPM Center Database  
(northeastipm.org)**



- Kenyan man experiences pests/ants
- Uses the internet to find a solution
- He posts the solution to a bulletin board for others to view and learn

**GOOGLE AD**  
[youtube.com](https://www.youtube.com)

# THE SOLUTION



# DECISION MATRIX

	Physical Manual	Hosted Seminars	Traditional Education	Website	Physical Message Board	Word of Mouth	Specialist	Guateca Education
Monetary Cost	5	3	1	10	7	10	4	8
User Time Commitment	10	4	1	7	7	10	6	4
Immediate Availability	10	1	2	7	8	9	3	5
Lasting Availability	9	3	2	9	7	10	2	9
Spreadable	7	4	4	8	8	10	5	6
Updatable	2	4	4	8	10	7	4	6
Socially Accepted	7	9	9	7	9	10	9	10
Ease of Use	7	9	9	7	9	10	7	10
Personal Ownership	4	7	8	7	9	10	6	9
Accuracy	9	10	10	7	8	6	10	10
Effectiveness	5	8	8	8	8	10	9	8
<b>Total</b>	<b>75</b>	<b>62</b>	<b>58</b>	<b>85</b>	<b>90</b>	<b>102</b>	<b>65</b>	<b>85</b>

# DECISION MATRIX RESULTS

**Word of Mouth (102)**

**Physical Message Board (90)**

**Website (85)**

**Guateca Education (85)**

# METHOD OF DISSEMINATION

Guateca education  
and website



Publish to a physical  
message board

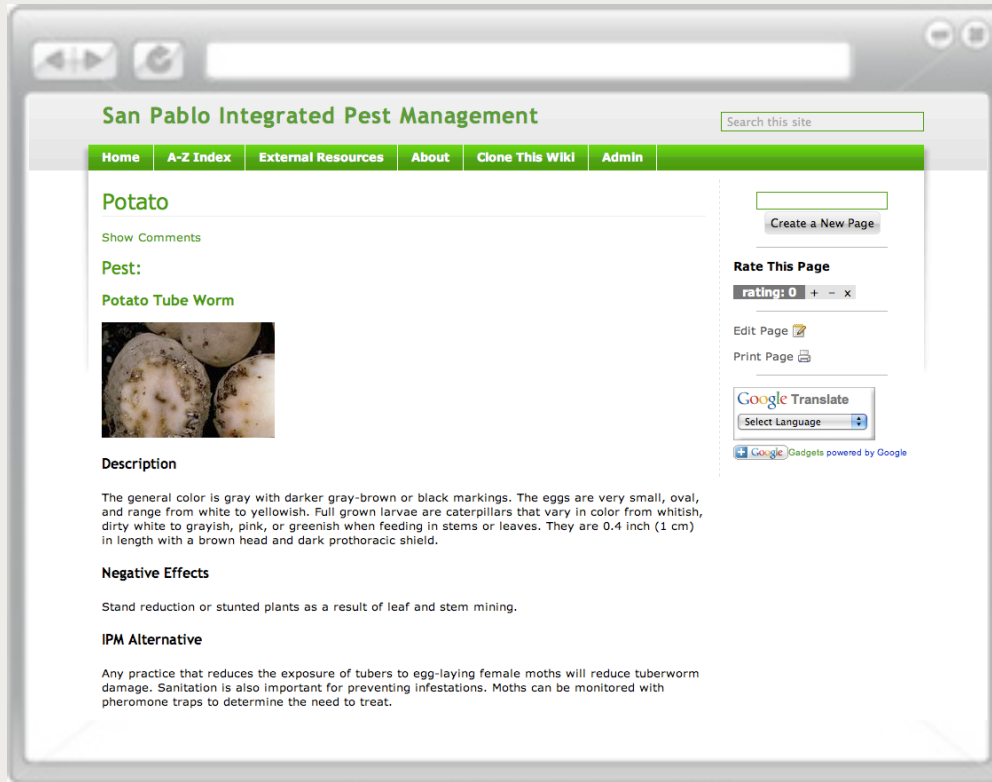


Sharing through  
word of mouth

# THE FINAL PRODUCT

Website  
Grant

# WEBSITE



- Anyone can add content
- Multiple languages
- Comment-able
- Clone-able
- Page rating system
- Simple and sexy
- Check it!

# THE GRANT

- EPA P3

- Materials:

- Message board materials \$100
- Dedicated IPM computer \$600
- Dedicated IPM printer \$300
- IPM specialist stipend \$10,000
- Specialist transportation \$1,000
- Specialist housing \$2,000
- Specialist food \$1,000

**Total cost of materials: \$15,000**

# THE NEXT STEPS

GUATECA/  
SUMMER  
2012

FUTURE

# GUATECA/SUMMER 2012

- Utilize organic ag curriculum and hired specialist to research specific IPM solutions in a collaborative manner
- Publish solutions to website
- Set up “IPM computer” in internet café



# GUATECA/SUMMER 2012



- Construct a physical message board
- Locate it in the town center

# TO INFINITY AND BEYOND!

- Locals continue to access website and utilize message board
- Students take on role as local IPM researchers and specialists
- IPM knowledge becomes common practice in San Pablo

# QUESTIONS

Comments  
Critiques  
Compliments  
Crying  
Clapping  
Food